

WE CLAIM:

1. In a device for measuring a level of a fluid in a container with a container bottom, in particular in a fuel tank of a motor vehicle, with an acoustic guide conduit provided in the container and with at least one ultrasonic transducer disposed close to one end of the acoustic guide conduit for generating ultrasonic pulses and for receiving the ultrasonic pulses reflected in the region of a fluid level in the container, the improvement wherein the acoustic guide conduit (2) comprises a horizontal or inclined approach region (11) disposed close to the container bottom (12).
2. The device according to claim 1, wherein the approach region (11) extends in a straight line or is coiled.
3. The device according to claim 1, wherein the ultrasonic transducer (3) is disposed on a side wall (10) of the container (1).
4. In a device for measuring a level of a fluid in a container with a container bottom, in particular in a fuel tank of a motor vehicle, with an acoustic guide conduit provided in the container and with at least one ultrasonic transducer disposed close to one end of the acoustic guide conduit for generating ultrasonic pulses and for receiving the ultrasonic pulses reflected in the region of a fluid level in the container, the improvement wherein the acoustic guide conduit (2) comprises at least one bend (15, 27) with a respective deflection (13, 13.1) and/or at least one straight region (29) with a conduit slope angle (25).

5. The device according to claim 4, wherein the ultrasonic transducer (3) is disposed at a container bottom (12) of the container (1).
6. The device according to claim 1, wherein the ultrasonic transducer (3) is disposed outside the container (1).
7. The device according to claim 4, wherein the ultrasonic transducer (3) is disposed outside the container (1).
8. The device according to claim 1, wherein the ultrasonic transducer (3) is disposed inside the container (1).
9. The device according to claim 4, wherein the ultrasonic transducer (3) is disposed inside the container (1).
10. The device according to claim 1, wherein the ultrasonic transducer (3) is a transmitter and receiver at the same time.
11. The device according to claim 4, wherein the ultrasonic transducer (3) is a transmitter and receiver at the same time.
12. The device according to claim 1, wherein the acoustic guide conduit (2) has at least one reference reflection surface (19).

13. The device according to claim 4, wherein the acoustic guide conduit (2) has at least one reference reflection surface (19).

14. The device according to claim 1, wherein the acoustic guide conduit (2) has at least two openings (17).

15. The device according to claim 4, wherein the acoustic guide conduit (2) has at least two openings (17).